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PRE-APPEAL BRIEF REQUEST FOR REVIEW		Docket Number (Optional)	
		2780-011	
I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to "Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450" [37 CFR 1.8(a)] on <u>October 3, 2005</u> Signature <u></u> Printed Name <u>Michael H. Jester</u>		Application Number	Filed
		10/087,386	March 1, 2002
		First Named Inventor	
		Kenneth A. Nishimura et al.	
		Art Unit	Examiner
		2638	Dzung D. Tran
<p>Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.</p> <p>This request is being filed with a notice of appeal.</p> <p>The review is requested for the reason(s) stated on the attached sheets(s). Note: No more than five (5) pages may be provided.</p> <p>I am the</p> <p><input type="checkbox"/> applicant/inventor.</p> <p><input type="checkbox"/> assignee of record of the entire interest. See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed.</p> <p><input type="checkbox"/> (Form PTO/SB/96)</p> <p><input checked="" type="checkbox"/> attorney or agent of record. Registration number <u>28,022</u></p> <p><input type="checkbox"/> attorney or agent acting under 37 CFR 1.34. Registration number if acting under 37 CFR 1.34 _____</p> <p> Signature <u>Michael H. Jester</u> Typed or Printed Name <u>619/628-4598</u> Telephone Number <u>October 3, 2005</u> Date</p> <p>NOTE: signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below.*</p>			

*Total of 1 forms are submitted.

This collection of information is required by 35 U.S.C. 132. the information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11, 1.14 and 41.6. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:)		
Ken A. Nishimura et al.)	Confirmation No.:	6282
)		
Patent Appl. No.:)	Examiner:	Tran, Dzung D.
10/087,386)		
)		
Filed on:)	Group Art Unit:	2633
Mar 01, 2002)		
)		
For: <i>An Optical Signal Multiplexer/</i>)		
<i>Demultiplexer Employing</i>)		
<i>Pseudorandom Mode Modulation</i>)		

PRE-APPEAL BRIEF REQUEST FOR REVIEW

MS - AF
Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-4150

Dear Sir:

Responsive to the Final Office Action mailed on July 27, 2005, please enter the following Remarks in support of the attached Form PTO/SB/33 in the above-entitled Patent Application.

REMARKS

Applicants herewith file a Notice of Appeal from the final rejections of claims 21-25 of record. Applicants also herewith file the attached Form PTO/SB/33 and request a panel review with the intent to obtain a decision eliminating the need to file an Appeal Brief. Applicants respectfully assert that the final rejections of claims 21-25 of record are clearly not proper and are without basis. This Pre-Appeal Brief Request for Review is based upon a clear legal and factual deficiency in the final rejections of claims 21-25 for the following reasons, which incorporate by reference all remarks in the record.

As noted in the Remarks in the record filed on May 09, 2005, Applicants respectfully assert that Examiner has not stated a proper *prima facie* case of obviousness in support of the rejections of claims 21-25. A proper *prima facie* case of obviousness requires a showing of the three prongs described in the Manual for Patent Examining Procedure (MPEP) §2142, namely: 1) suggestion or motivation in the prior art or knowledge generally available; 2) reasonable expectation of success; and 3) teaching of all claim limitations.

Regarding the first prong, for the reasons recited in the record, Applicants particularly assert that the Examiner recites no evidence or suggestion for such combination from the prior art, despite the clearly-felt need for and the several motivating advantages of the combination discussed by Applicants in the present application. The Examiner dismisses this assertion in the record by noting “the knowledge generally available to one of ordinary skill in the art,” without providing a scintilla of supporting evidence. As stated in MPEP §2144.03, it is never appropriate to rely solely upon “common knowledge” without evidentiary support in the record. See *In re Zurko*, 258 F.3d 1379, 59 USPQ2d 1693 (Fed. Cir. 2001). An assertion of common knowledge not based on evidence in the record lacks substantial evidentiary support necessary to justify the actions of a federal administrative agency subject to the Administrative Procedure Act (APA). *In re Lee*, 277 F.3d 1388, 61 USPQ2d 1430. Moreover, any facts asserted to be “well known” or “common knowledge” should be of notorious character and serve only to fill in gaps. *In re Ahlert*, 424 F.2d 1088, 165 USPQ 418 (CCPA 1970).

Upon presentation of a proper *prima facie* case of obviousness, Applicants stand ready to offer rebuttal evidence to show that combining orthogonal PRN principles with PDM principles in the manner claimed by Applicants in base claim 21 is, in fact, counter-intuitive in the prior art. At this point, however, the Examiner's findings of obviousness rest alone on suggestions from Applicants' specification, which is an improper "hindsight" basis for the final rejections of claims 21-25.

Regarding the second prong, Applicants particularly assert that there is no discussion of the existence of a reasonable expectation of success in the record to date. The Examiner dismisses Applicant's assertion in the record by noting "the knowledge generally available to one of ordinary skill in the art," without providing a scintilla of supporting evidence. Again, the Examiner's position violates *In re Zurko, supra*.

Finally, regarding the third prong, Applicants particularly assert that the combination of Eskildsen'750 and Hayee'742 does not suggest all elements of Applicants' invention as claimed in base claim 21 for the reasons set forth in the record and for the reasons discussed below.

Examiner notes that Eskildsen'750 includes a pseudorandom bit sequence (PRBS) element in Fig. 4, but this PRBS element is employed to amplitude-modulate the optical signal in a well-known manner. Except in connection with the definition of the Raman efficiency coefficient (col. 5 at line 28), Eskildsen'750 never mentions optical polarization in any context whatsoever. Moreover, Eskildsen'750 never mentions modulation signal orthogonality (in the coding sense) in any context whatsoever, and in fact mentions PRBS only in passing with no further enabling description, thereby demonstrating a complete disregard for any of the well-known principles of orthogonal pseudorandom noise (PRN) amplitude-modulation.

Hayee'742 proposes a solution to the well-known unsolved polarization-division multiplexing (PDM) problem of the blind recovery of the signal polarizations at the receiver. Hayee'742 discloses a simple polarization-division multiplexing (PDM) technique that avoids the well-known PDM difficulties by creating two polarization components distinguished by their different power levels to facilitate demultiplexing without the need for blindly recovering signal polarizations. This is the same PDM blind recovery problem that is solved for the first time by

Applicants' claimed invention for more than two signal components and Hayee'742 certainly would have discussed using "mutually-orthogonal" modulation schemes for resolving this difficult and well-known problem had it been "obvious to a skilled practitioner in the art" to do so, especially in view of the Hayee'742 filing date of May 19, 2000 after the Eskildsen'750 issue date of September 28, 1999.

Examiner asserts that the combination of Eskildsen'750 and Hayee'742 discloses the claimed element of *producing a plurality of mutually-orthogonal polarization-mode modulated optical signals {MS_i}* merely because Hayee'742 discloses a simple power-encoded PDM technique and Eskildsen'750 includes a PRBS element for amplitude-modulation of an optical signal. Applicants respectfully assert that neither Eskildsen'750 nor Hayee'742 disclose or even suggest any "*mutually-orthogonal*" signal schemes in the sense disclosed and claimed in base claim 21 by Applicants. Thus, even when combined, the cited references do not suggest Applicants' claimed invention.

Claims 1-20 and 26-36 stand allowed. Applicants request reconsideration and withdrawal of the final rejections of claims 21-25 and respectfully request that the application be advanced to issue at an early date.

Respectfully submitted,



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Attorney for Applicants